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Public Health
Seattle & King County

Health Advisory: Influenza A H3N2 Variant Virus (H3N2v) Infections – 3 AUG 2012

Action requested:

- **Be alert to the potential for H3N2v infections in persons with influenza-like illness (ILI).**
  - **Suspect possible H3N2v in persons with recent contact with pigs or agricultural fairs, their close contacts and persons with nontypeable influenza A infections.**
- **For suspected cases, obtain a nasopharyngeal swab or aspirate, place the swab or aspirate in viral transport medium, and contact Public Health (206-296-4774) immediately to report the case and facilitate testing at the state public health laboratory.**
- **RT-PCR testing for influenza should be considered for patients with ILI prior to the start of the traditional influenza season in October.**
- **RT-PCR testing for influenza should be considered throughout the year for patients with ILI reporting recent swine exposure and for those who can be epidemiologically linked to confirmed cases of variant influenza.**
- **Clinicians should consider antiviral treatment with oral oseltamivir or inhaled zanamivir in patients with suspected or confirmed H3N2v virus infection. Antiviral treatment is most effective when started as soon as possible after influenza illness onset.**
- **Laboratories should send all influenza positive isolates to WA Public Health Laboratory for confirmatory testing.**

Background:

- Since July 2011, 29 cases of human infection with H3N2v virus (containing the 2009 H1N1 virus M gene) have been detected from eight states (none in the Pacific Northwest). From July 12 through August 1, 2012, 16 confirmed cases of H3N2v virus were reported to CDC. All 16 cases reported contact with swine prior to illness onset; 15 reported contact while attending or exhibiting swine at an agricultural fair.
  - The clinical illness has been comparable to seasonal influenza; 3 patients were hospitalized as a result of their illness in 2011, and all have recovered;
  - 23 of these cases reported swine contact prior to onset of their illness;
  - Of these 23 cases, 19 were associated with fairs where swine were present;
  - In 6 cases (all reported in 2011), there was no reported swine contact.
- Most human infections have occurred following swine contact. While limited human-to-human transmission of H3N2v virus is thought to have occurred on three occasions in the fall and winter of 2011, sustained and efficient community transmission of H3N2v virus has **not** been detected to date.
- According to USDA, this swine H3N2 virus with the pandemic M gene has been detected in swine in a number of U.S. states. This virus may be circulating widely in U.S. swine at this time.
- Commercially available rapid influenza diagnostic tests (RIDTs) may **not** detect H3N2v virus in respiratory specimens. Therefore, a negative rapid influenza diagnostic test result does not exclude infection with H3N2v or any influenza virus. In addition, a positive test result for influenza A cannot confirm H3N2v virus infection because these tests cannot distinguish between influenza A virus subtypes (they do not differentiate between human influenza A viruses and H3N2v virus). Therefore, respiratory specimens from suspected cases should be collected and sent for RT-PCR testing at the public health laboratory.

Resources

- More information on influenza A H3N2v including "Prevention Strategies for Seasonal and Influenza A(H3N2)v in Health Care Settings" is available at **http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm**